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November 29, 2006

Kevin J. Martin
Chairman
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: Reply Comments
ET Docket No. 06-135 & RM-11271

Dear Chairman Martin:

The Neural Engineering program of Huntington Medical Research Institutes ("HMRI") supports the Alfred Mann Foundation's ("AMF") request that the Commission adopt service rules and allocate up to 20 MHz of spectrum to accommodate new wireless wideband microstimulator devices on a secondary basis. The NEP of HMRI conducts research sponsored by the National Institutes of Health, directed towards developing neuroprostheses and functional electrical stimulation to aid persons with neurological disorders and injury. We are planning to use the AMF microstimulators as part of this work.

More generally, the allocation of this spectrum is vital to the development of a new generation of wireless wideband medical devices designed to restore sensation and function to paralyzed limbs and organs, and for other applications including the next generation of devices for deep brain stimulation, to ameliorate the symptoms of Parkinson's disease and other movement disorders. Many of these devices will include adaptive controllers in which the external controller will modulate the electrical stimulation in response to bioelectric signals recorded by the implanted components. This will require 2-way, high speed communication between the implanted components and the controller.

The Commission's rules currently do not provide any spectrum to permit operation of new wireless wideband microstimulator devices. Although the Commission has allocated some spectrum for medical telemetry operations and for medical implant communications services, this spectrum is not suitable for wideband medical implant devices that require larger bandwidths to perform more complex functions. Without adequate spectrum and service rules to support the operation of these innovative devices, millions of Americans will be deprived of a safe and effective medical treatment for their debilitating health conditions.

The Commission's notice of inquiry issued in the above-referenced proceeding is an important first step toward adopting the necessary rules to encourage deployment of the next generation of wireless wideband microstimulator devices. HMRI urges the Commission to continue its efforts in this area by expeditiously granting AMF's request for commencement of a separate rulemaking.

Sincerely,

Douglas B McCreery, PhD
Director, Neural Engineering Program
Huntington Medical Research Institutes

cc: Marlene H. Dortch
FCC Secretary